Reflection on school-enterprise Cooperation Mode under the background of "Double High Plan"

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Abstract. Deepening school-enterprise cooperation and integration of industry and education is the focus of improving the quality of talent training and promoting the reform of vocational education. However, in the actual development process, there are still some restricting factors such as insufficient depth of school-enterprise cooperation, unsound mechanism and insufficient motivation of enterprises. Therefore, taking the knowledge structure classification as the theoretical basis and the German dual system as the basis for verification, this paper reanalyzes the school-enterprise cooperation in higher vocational colleges in China by combining the two, and puts forward effective countermeasures to promote the in-depth cooperation between schools and enterprises and the in-depth integration of industry and education.

Keywords: Vocational Education, "Double height plan", Knowledge Structure, University-enterprise Cooperation

1. Introduction
Since the independent attribute and status of vocational education were redefined and clarified in the whole higher education system, China's vocational education has made great progress in history. With the implementation of "20 Principles of Vocational Education", the ideas and mechanisms of industry-education integration and school-enterprise cooperation in various industries have been constantly innovated, and the school-enterprise cooperation in vocational education in China has gained new connotation and development [1]. In 2019, the Chinese characteristic higher vocational schools and high levels of professional construction plan (hereinafter referred to as "twin plan") promulgated, university-enterprise cooperation of higher vocational colleges and universities with the domestic technology industry's leading enterprises in talent training, service, technology innovation of social management, employment, entrepreneurship, cultural exchanges and cooperation, passing on several aspects, such as depth of formation of university-enterprise cooperation the fate of the universe. The integration of production, teaching and research in higher vocational colleges and school-enterprise cooperation is the basic idea and mode of running a school for vocational education at home and abroad, and is the core and key to running a good higher vocational education in China [2]. Higher vocational colleges must break through the key technical bottlenecks of enterprise management system construction and cooperation development depth in order to realize school-enterprise integration cooperation. Under the background of "Double high school plan", we should study the opportunities and challenges faced by higher vocational colleges, take the German dual system as a reference, take the training of high-tech talents as the goal, apply the classification theory of technical skills and expertise to talent training, and reconstruct the school-enterprise cooperation model.

2. Methodology

2.1 Opportunities and challenges faced by school-enterprise cooperation under the background of "Double High Plan"

The overall goal of the plan is that by 2035, a number of higher vocational schools and professional groups will reach the international advanced level, lead the modernization of vocational education, provide high-quality human resources support for economic and social development and national competitiveness, and form a development model of vocational education with Chinese characteristics. It is pointed out that higher vocational colleges should implement moral education, pay attention to the all-round development of college students'
morality, intelligence, physique, aesthetics and labor, and also emphasize the improvement of the education mechanism of combining work with study and combining morality with technology. At the same time, higher vocational colleges should grasp the trend of global industrial iteration and domestic industrial upgrading, actively combine with market supply and demand, and further promote the matching of professional construction and industrial development, so that professional training talents for industrial practice. In this context, higher vocational colleges have new requirements, and school-enterprise cooperation is facing new opportunities and tasks.

2.1.1 We will deepen innovation in school-running mechanisms and enhance the vitality of schools

Vitality of higher vocational colleges for ascension has been the party and the country attaches great importance to the problem, the State Council promulgated the several opinions about deepening the integration production and education and "decision about speed up the development of modern vocational education" and "national vocational education reform and implementation plan" and so on file have been clearly put forward the diversified educational problems, proposed that industries and enterprises to actively participate in to the process of vocational education school. However, in the actual process of running a school, it is difficult for the government, enterprises and schools to participate in the system reform of running a school. In the opinions on the implementation of the "Double High Plan", it puts forward the requirements of improving the training mechanism, encouraging industries and enterprises to carry out joint construction and joint training with schools, and clearly puts forward the requirements of relevant policies. The implementation of the "Double High Plan" has created conditions for deepening school-enterprise cooperation, industry-education integration, promoting the co-construction of government, enterprises and schools, speeding up school-enterprise cooperation, and introducing new technologies and resources. It also puts forward urgent requirements.

2.1.2 Deepen the reform of training mode and improve the quality of personnel training

The "Double High Plan" clearly puts forward the fundamental task of cultivating people with moral integrity and paying more attention to the all-round development of morality, intelligence, physical fitness, beauty and labor to further improve the quality of talent training. Suggestions on the Implementation of the "Double High School Plan" put forward to further deepen the reform of training mode, focusing on training a group of high-quality technical and technical talents with real social needs and excellent technical skills. Facing the adjustment of national economic structure, the change of mode is very important for the innovation of talent training mode reform. Therefore, it is an important task for higher vocational colleges to deepen school-enterprise cooperation, introduce enterprise resources, jointly improve the personnel training mechanism, improve the practice and training base, speed up the introduction of high-level talents, jointly develop school-enterprise co-built teaching materials, realize the "two-element" education, and truly improve the quality of personnel training.

2.1.3 We will promote precise cooperation between schools and enterprises and improve our ability to provide social services

The goal of training students in vocational colleges is to truly serve the society. However, in the process of training students, vocational colleges lack the ability of technological innovation, which makes it impossible to carry out in-depth school-enterprise cooperation. In the process of economic structure transformation, the speed of industrial upgrading and iteration is fast, and in the process of iteration, there are higher requirements for small, medium and micro enterprises, which is conducive to promoting precise docking between schools and enterprises for joint project cooperation. At the same time, in the process of establishing new innovation platforms and jointly developing technological achievements, students can truly "learn by doing" and "learn by doing", and constantly improve their technical skills and social service ability. This will provide a driving force for industrial upgrading and structural transformation, and really help the development of small and medium-sized enterprises.

2.1.4 Adhere to the overall development concept and build a high-level professional group

The "Double High Plan" puts forward the requirements of building a high-level professional group, which breaks down the professional barriers to a certain extent, can really carry out discipline crossing, and is conducive to adapting to the fast and changeable market environment [3]. The construction of major group is different from the construction of major, which requires that all majors should be adjusted and optimized closely around the major dynamic. However, faced with the dilemma that schools cannot pay attention to the market in real time, school-enterprise cooperation and joint development of talent training program is the most efficient approach. In the face of "twin plan" requirement, the construction of the professional group should start from the whole, break each major resource monopoly, around industry professional group of development, the talent training scheme, course construction, practice base and so on various aspects of university-enterprise cooperation, more help to create professional group in line with market demand, can produce high quality conforms to the type of talent.
2.1.5 We will improve the construction of double teachers and deepen the integration of production and education

In May 2018, General Secretary Xi Jinping proposed in Peking University: "The key to cultivating talents lies in teachers. The quality of teachers directly determines the ability and level of running a university." Vocational education is an education that can better serve the market, and a higher level of teachers is needed to achieve the goal of talent training in higher vocational colleges [4]. Since higher vocational education entered the stage of rapid development, the Party and the state have attached great importance to the construction of double-qualified teachers. However, as for how to define "double-qualified teachers" and how to introduce high-level teachers, the construction and development of double-qualified teachers are not ideal. Now, the implementation opinion "twin plan" clearly put forward the double requirements, require starting in 2019, vocational colleges related to the recruitment of teachers, there are more than 3 years working experience in the enterprise of higher vocational education can open recruitment, this is a sound system of double team construction, to promote high technology personnel to enter the school provides support. In addition, we should deepen school-enterprise cooperation and production-education integration in higher vocational colleges, so as to improve the construction of double-qualified personnel in cooperation.

2.2 Rethinking the school-enterprise cooperation model under the background of "Double High Plan"

At present, there are still some problems in the school-enterprise cooperation mode of higher vocational colleges in China, such as single form, shallow cooperation and lack of mutual aid consciousness. First of all, the enterprise has low enthusiasm. In the cooperation process, the enterprise wants to obtain the maximum economic value with the minimum input, and the purpose of quickly obtaining profits is unrealistic. Second, the school-enterprise cooperation mechanism of higher vocational colleges is not perfect, the cooperation process is not clear, lack of cooperation stability. Thirdly, there is a lack of corresponding financial support for the practice and training base [7]. We believe that the theory of knowledge structure classification provides the theoretical basis for school-enterprise cooperation, and the German dual system provides practical experience. Only by combining the two can we truly solve the above problems, truly practice the cooperative education mechanism, deepen school-enterprise cooperation, carry out double-subject teaching, and realize school-enterprise cooperation in a substantial sense. Therefore, in order to realize school-enterprise cooperation in a real sense, vocational colleges and enterprises need to open to each other from the aspects of training subject knowledge and practical knowledge, procedural knowledge and declarative knowledge, explicit knowledge and tacit knowledge. To be specific, we can carry out professional setting and iteration from specific market research, enterprise demand and other directions. In addition, effective training programs should be formulated for personnel training and communication, enterprises and social funds should be introduced to increase investment in education, and government encouragement, enterprise support, and comprehensive cooperation between government, enterprises and schools should be carried out to promote the transformation of higher vocational education from unitary to diversified. Combined with the theory of knowledge structure and the experience of German dual system, under the background of "double high plan", school-enterprise cooperation should take new measures.

2.2.1 School-enterprise cooperation should improve the teaching system integrating theory and practice teaching

Vocational education should be based on market demand to the teaching of subject knowledge and practical knowledge to comb, different treat subject knowledge and practical professional knowledge have different requirements, should be on the basis of the theory, guided by the market research data for the new, as the ratio of subject knowledge and practical knowledge, with different proportion and time period as the way, to change the talent training scheme. In the specific practical operation process, the German dual system development model can be used as a reference to carry out the integrated teaching method of truth and reality, the organic combination of teaching knowledge and applied knowledge, and problem-oriented and project-oriented exercises.

2.2.2 School-enterprise cooperation should focus on the transformation of knowledge and situational applications

Vocational education should be more knowledge classification, and the fusion of different professionals were analyzed, and the actual market demand and industry will each major requirements such as data analysis, to meet the needs of market and enterprises, with the German dual system as an example, on the one hand, dedicated to the study of the theory of knowledge, professional in school, on the other hand will be professional skills training in the enterprise. In this way, new teaching modes and technical skills can be summed up in practice. It is not limited to invariable ways and methods, but really achieve the "unity of knowledge and practice", from practice to practice.
Factors: first, the common education should be to encourage organic integration of all kinds of knowledge as the goal, to the teachers team construction, improve the double team construction, and learn to practice bases, enterprise practice in many ways, such as integration, so that the students can according to the different scenarios, the subject knowledge and practical knowledge, procedural knowledge, implicit knowledge and explicit knowledge transformation, promote personal growth. Secondly, school-enterprise cooperation should give full play to the effective resources of industries and enterprises, optimize the resources of industries and enterprises into various kinds of knowledge through teaching, and make specialized courses more in line with social needs through students’ learning and practice. Thirdly, the enterprise practice that students participate in is able to participate in the new social practice production. Only by participating in high-level and high-quality practice activities can students get in touch with more advanced ideas and cancel the campus training base that has completely deviated from the society and the market [8]. For example, in the German dual system, another part of teaching is to cultivate technical skills directly in enterprises. Only in this way can students truly integrate into the teaching and acquire more implicit knowledge.

2.2.3 School-enterprise cooperation should aim at cultivating excellent professionals

Vocational education through the above theory and practice of the integration of the teaching system reform, training students to integrate all kinds of knowledge and with the application of the situation and mutual transformation. However, the truly excellent technical and technical talents, even the craftsmen of a large country, also need the correct world outlook and values. Only in different social backgrounds can they give full play to their true abilities and become the elite talents of modern technical skills. First of all, to cultivate students' good dedication and virtue spirit, the ministry of Education put forward five education to carry out well, can not lose their own personality in the process of learning technical skills. Taking Germany as an example, vocational education in Germany attaches great importance to the cultivation of personality and the improvement of social skills at the same time, so vocational colleges cannot simply put the cultivation of high-tech skills in the first place. Second, to deal with the changing society, higher vocational colleges should pay attention to the better combination and transformation of declarative knowledge and procedural knowledge, so that students can truly become experts in technical skills, rather than simply senior technicians. Third, in the trend of globalization, under the background of One Belt And One Road, mutual fusion, various professional disciplines cross the cases emerge, to solve the problem of higher vocational students is not only to develop simple knowledge within the discipline, should develop its vocational personality and innovation, vocational and technical aspects of the content of interdisciplinarity, establish a perfect training system can cope with change of the market. Fourthly, enterprises should be built in schools and schools should be built within enterprises to build a more extensive school-enterprise cooperation model, which can truly integrate students’ vocational and technical education into educational practice and complete their personal career transformation and improvement.

3. Conclusion

To sum up, under the background of "Double High Plan", higher vocational colleges are faced with new situation and requirements, and school-enterprise cooperation is faced with new opportunities and tasks. However, in the long-term development of school-enterprise cooperation, there are still some problems, such as insufficient depth, imperfect mechanism and lack of enterprise motivation. We make an in-depth theoretical analysis of school-enterprise cooperation by using the knowledge structure classification theory, and find the theoretical basis for the development mode of school-enterprise cooperation, and use the German dual system as a practical reference to find the shortcomings of China's current school-enterprise cooperation mode. On this basis, based on the theory of knowledge structure and the German dual system as the practical basis, according to the requirements of the implementation of the "Double high Plan", this paper makes a new thinking and analysis on the future school-enterprise cooperation mode in China, puts forward corresponding effective countermeasures, and puts forward reasonable Suggestions for the improvement of the school-enterprise cooperation development mode. Of course, in the future development process, we still need to continue to explore, combine knowledge with practice, constantly improve the school-enterprise cooperation model, and finally promote the integration of industry and education, school-enterprise cooperation implementation.

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